MARK R. THOMPSON
Manager, Rates & Regulatory Affairs
Tel: 503.721.2476
Fax: 503.721.2516
email: mark.thompson@nwnatural.com

NW Natural
220 NW 2ND AVENUE
PORTLAND, OR 97209
TEL 503.226.4211
www.nwnatural.com

January 10, 2014

VIA ELECTRONIC FILING AND FIRST CLASS MAIL

Public Utility Commission of Oregon
3930 Fairview Industrial Drive SE
Post Office Box 1088
Salem, Oregon 97308-1088

Attn: Filing Center

Re: Docket UM 1654 – Investigation of Interstate Storage and Optimization Sharing

Northwest Natural Gas Company, dba NW Natural ("NW Natural" or "Company"), files herewith its Supplemental Reply Testimony in the above-captioned docket. Enclosed are an original and five copies.

A copy of this filing has been served on all parties to this proceeding as indicated on the enclosed Certificate of Service

Please call me with any questions.

Sincerely,

/s/ Mark R. Thompson

Mark R. Thompson

Enclosure

cc: Service List

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing NW NATURAL'S SUPPLEMENTAL REPLY TESTIMONY, upon all parties of record in the UM 1654 proceeding by electronic mail.

CHAD M STOKES ***W***
CABLE HUSTON BENDICT
HAAGENSEN & LLOYD
cstokes@cablehuston.com

G. CATRIONA MCCRACKEN ***W***
CITIZENS' UTILITY BOARD OF OREGON
catriona@oregoncub.org

OPUC DOCKETS ***W***
CITIZENS' UTILITY BOARD OF OREGON
dockets@oregoncub.org

ERIK COLVILLE ***W***
PUBLIC UTILITY COMMISSION OF OREGON
erik.colville@state.or.us

TOMMY A BROOKS ***W***
CABLE HUSTON BENEDICT
HAAGENSEN & LLOYD
tbrooks@cablehuston.com

ROBERT JENKS ***W***
CITIZENS' UTILITY BOARD OF OREGON
bob@oregoncub.org

JASON W. JONES ***W***
PUC STAFF-DEPARTMENT OF JUSTICE
jason.w.jones@state.or.us

LISA F RACKNER ***W***
MCDOWELL RACKNER & GIBSON PC
dockets@mcd-law.com

DATED at Portland, Oregon, this 10th day of January 2014.

/s/ Kelley C. Miller
Kelley C. Miller
Rates & Regulatory Affairs
NW NATURAL

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UM 1654

NW Natural

Supplemental Reply Testimony of Keith White

INTERSTATE STORAGE AND OPTIMIZATION
EXHIBIT 500

January 10, 2014

I. INTRODUCTION AND SUMMARY

Q. Please state your name.

A. Keith White.

Q. Are you the same Keith White who filed direct and reply testimony in this case?

A. Yes. My direct testimony was filed as NWN/100 and my previous reply testimony was filed as NWN/300.

Q. What is the purpose of your supplemental reply testimony?

A**.** The purpose of this testimony is to respond to the supplemental testimony filed by Erik Colville and Deborah Garcia of Staff of the Public Utility Commission of Oregon ("Staff") on November 22, 2013.

Q. Please summarize your testimony.

A. The Company agrees with Mr. Colville's conclusions that the Company's interstate and intrastate storage service business ("Storage Services") and the Company's optimization of various utility resources and capacity at Mist through a third-party partner ("Optimization Activities") are beyond the normal course of business for a local distribution company ("LDC") like NW Natural.[1] The Company also agrees with Mr. Colville's recommendation that the current sharing arrangement remain unchanged. Specifically, we agree that there is no evidence that business conditions or risks associated with the Company's Storage Services and Optimization Activities have changed—since the time those arrangements were adopted by the Public Utility Commission of Oregon ("Commission")—such that it would not be appropriate to revise the sharing percentages.[2]

[1] Staff/200, Colville/4-5.

[2] Staff/200, Colville/5.

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The Company also understands Mr. Colville's concerns related to the potential harm to customers that could occur if the Company were to sell physical gas to cover a financial transaction resulting from the Company's Optimization Activities. However, as explained more fully below, customers are protected because any exchanges of gas for optimization purposes are priced identically, resulting in a net zero gain or loss on such exchanges.

The Company disagrees with Ms. Garcia's recommendation to include earnings derived from the Optimization Activities in the Company's Results of Operations ("ROO"). First, inclusion of these earnings in the ROO would impact both the Spring Earnings Review, and any other earnings reviews that might be ordered under the Commission's deferral statute, ORS 757.259, including the earnings review the Commission ultimately adopts as a component of the Site Remediation Recovery Mechanism (SRRM) under consideration in docket UM 1635. As a result, Ms. Garcia's proposal could have the unintended but consequential effect of significantly diluting or eliminating altogether NW Natural's incentive to continue its participation in Optimization Activities. Moreover, Ms. Garcia's analysis is incomplete and does not take into account the actual sharing percentages on the specific types of optimization transactions and therefore she understates the impact of her recommendations. When properly accounted for, it becomes clear that Ms. Garcia's proposal could materially reduce the Company's share of optimization earnings, which under certain circumstances would significantly reduce the Company's incentive to engage in these activities, to the ultimate detriment of both the Company and its customers.

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II. RESPONSE TO MR. COLVILLE

Q. On page 4 of his testimony, Mr. Colville states his conclusion that the Company's Storage Services and Optimization Activities are beyond the normal course of gas LDC base expectations. How do you respond to Mr. Colville's conclusions?

A. The Company agrees with Mr. Colville's conclusion that these activities require a level of expertise and activity beyond that which is normally expected from a gas LDC.[3] These activities are not a part of the Company's core responsibility to distribute natural gas to utility customers; instead, they involve speculation on the market and necessitate the execution of complex transactions which we could not perform for ourselves. As described in previous testimony, the Company agrees that LDCs do not have an "unlimited obligation" to engage in every type of activity designed to optimize its assets.[4] This is particularly true of activities that increase shareholder risk. Rather, if a discretionary business activity will increase shareholder risk, the Company agrees that there needs to be an adequate incentive to engage in the activity and the incentive must be designed to account for the increased risk. As is evidenced by the benefits that have accrued to customers and shareholders through the Company's successful Storage Services and Optimization Activities, incentives are effective mechanisms to encourage the Company to continue to innovate.

Q. On page 5 of his testimony, Mr. Colville concludes that there is no compelling reason to revise the sharing mechanism that has worked well for customers and shareholders. How do you respond to this conclusion?

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[3] Staff/200, Colville/4; *see also,* Staff/100, Colville/14.

[4] *See,* Staff/100, Colville/9.

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A. I agree with Mr. Colville—the current arrangement works as intended and should be maintained. The current arrangement recognizes the benefits to customers and encourages the Company's long-term commitment to these discretionary business activities. As Mr. Colville correctly points out, there have been no relevant changes that would suggest that revision of the sharing arrangement is necessary or proper.[5]

Q. On pages 10 and 11 of his testimony, Mr. Colville discusses the risk that customers may incur additional costs in the event that the Company is required to sell stored gas in order to cover a financial transaction entered into as part of the Company's Optimization Activities. What is your response to this concern?

A. I understand the nature of Mr. Colville's concern. To avoid the potential problem described by Mr. Colville, the Company has structured the optimization transactions with its Asset Management Agreement optimization partner to keep transaction gains/losses within its Optimization Activities book. Specifically, when a storage transaction requires NW Natural to "sell" and later "replace" gas, the sale and purchase prices are structured as an exchange of gas with no net cost to the Company. Thus, if there is a transaction loss, the customers' sharing of the overall optimization benefit would be commensurately reduced, but they are protected from that loss negatively impacting their Purchased Gas Adjustment ("PGA") cost.

Exhibit 501 contains documentation of a sample set of 2013 transaction confirmations demonstrating this practice. In the first confirmation #A1, NW Natural is the Seller. In the second confirmation #A2, NW Natural is the Buyer. The Contract Price on both Confirmations reflects the exchange nature; the prices are not tied to market indices or actual market transactions.

[5] Staff/200, Colville/5.

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While customers are buffered from any optimization gains/losses showing up in the PGA, I should note that there is a second order timing impact on the Company's weighted average cost of gas ("WACOG"). Some costs end up being shifted between the current and next year's WACOG due to storage inventory cycling. The cost amounts exactly offset, but there is a timing difference between the two years.[6]

III. RESPONSE TO MS. GARCIA

Q. On page 2, Ms. Garcia testifies that she supports Citizens' Utility Board of Oregon's ("CUB") proposal to include income derived from the optimization of ratepayer-owned assets in the ROO as utility income for purposes of earnings reviews, and in particular, for the annual Spring Earnings Review. How do you respond to Ms. Garcia's recommendation?

A. The Company disagrees with Ms. Garcia's recommendation for all of the same reasons that the Company disagrees with the same recommendation from CUB. As I explained in my reply testimony, inclusion of revenues from Optimization Activities in regulated earnings for the purposes of the Spring Earnings Review, and other earnings reviews as well, could essentially eliminate NW Natural's incentive to participate in these activities in the first place—regardless of the sharing allocation adopted.[7] My previous reply testimony described the Company's position with respect to CUB's similar recommendation and those same arguments apply here as well.[8]

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[6] In its WACOG gas accounts the Company records a Mist storage withdrawal and an equivalent injection for the optimization volumes in order to transfer inventory between months. Rather than record these withdrawals/injections at the same cost, the Company's accounting convention has been to follow the current regulatory treatment that withdrawals/injections after November 1 of each PGA year be reflected as PGA variances. Specifically, the Company records the withdrawal at the average embedded Mist inventory cost and records the injection at the average cost of gas purchases used for core storage injections during the relevant month. The practical consequence is that storage optimization shows up as additional cycling of core storage and helps bring the carry-forward storage inventory value closer to market.

[7] NWN/300, White/19-20.

[8] *Id.*

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Q. In addition to the points you have already made, do you have any other responses to Ms. Garcia's testimony?

A. Yes. Ms. Garcia appears to base her conclusions on the results shown in her exhibit, Staff/302, describing the effect of including Optimization Activity revenues in the Spring Earnings Review. Ms. Garcia concludes that under Staff's proposal, the Company's share of Mist Optimization Activities would be reduced to no less than 39 percent. Ms. Garcia concludes that this reduction is acceptable because this sharing percentage "far exceeds the sharing allocation of other sharing mechanisms such as the WACOG Sharing mechanism."[9] However, the calculations in Ms. Garcia's exhibit are incomplete and, in some instances based on incorrect values. As a result, Ms. Garcia significantly overstates the Company's share of revenues resulting from assets included in customer rates under her proposal.

Q. Please explain your statement that Ms. Garcia's exhibit is based on incorrect values.

A. Ms. Garcia's analysis in Staff/302 is incorrect because it reverses the storage capacity proportions. Ms. Garcia indicates that the ratepayer share of the Mist storage capacity is 47 percent and the shareholder share is 53 percent. However, the ratepayer capacity percentage is actually 53 percent and the shareholder percentage is 47 percent.

Q. Please explain your statement that Ms. Garcia's exhibit is incomplete.

A. Ms. Garcia's exhibit shows the effect of her proposal on only those revenues attributable to the optimization of Mist Storage facilities, but ignores entirely the effect her proposal would have when it is applied to NW Natural's optimization of gas and pipeline contracts as well. Specifically, Ms. Garcia's exhibit includes revenues from both the non-utility

[9] Staff/300, Garcia/5.

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storage, of which the Company receives 80 percent, and the portion of Mist storage that is included in customer rates, of which the Company receives 33 percent. However, Ms. Garcia fails to show how her recommendation would affect total Optimization Activity revenues, including those related to optimization of NW Natural's gas and pipeline contracts, of which the Company receives 33 percent. This omission is significant because the majority of the Optimization Activities' earnings are derived from these non-Mist activities—meaning the vast majority of the earnings from the Company's Optimization Activities are subject to the 33/67 percent sharing. Inclusion of these non-Mist optimization earnings in the Spring Earnings Review will cause NW Natural's overall sharing percentage under Ms. Garcia's proposal to decrease significantly.

Q. Do you have any other concerns with Staff/302?

A. Yes. It is improper for Ms. Garcia to include the revenues from the optimization of the non-utility portions of Mist in the Spring Earnings Review. By her own terms, Ms. Garcia recommends that the Spring Earnings Review apply to revenues from Optimization Activities that use "ratepayer-owned assets." Nevertheless, while it is unclear from her testimony, based on Staff/302 it appears that Ms. Garcia considers the non-utility Mist optimization an activity that uses "ratepayer-owned assets." Thus, Ms. Garcia subjects earnings from non-utility Mist optimization to the Spring Earnings Review.[10]

Ms. Garcia's apparent characterization of non-utility Mist storage as a "ratepayer-owned asset" is incorrect on its face. As I explained in my Opening Testimony, non-Mist storage was developed with shareholder investments and cannot fairly be regarded as a "ratepayer-owned asset." Moreover, Ms. Garcia's attempt to include these revenues in

[10] In Column C of Staff/302, Ms. Garcia totals the income from both the non-utility storage activities (Column A) and the storage activities using facilities that are included in rates (Column B) and then subjects this total income (Column C) to the Spring Earnings Review (Column D).

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regulated utility earnings would result in a mismatch from a ratemaking perspective. As I explained, the investment in the non-utility Mist storage is not accounted for in customer rates. For this reason, including the revenues from non-utility Mist storage—but not the investment—in the calculation of the Company's rate of return ("ROR") for the Spring Earnings Review would artificially and unfairly overstate the Company's earnings, and therefore should not be implemented.

Q. Have you prepared an exhibit demonstrating the true impact of Ms. Garcia's recommendation, when all errors and omissions are accounted for?

A. Yes. I have prepared an exhibit, NWN/502, which replicates Staff/302, but (a) includes the correct storage capacity proportions allocable to customers and shareholders; (b) includes revenues from non-Mist optimization including those resulting from gas and pipeline contracts; and (c) removes from inclusion in the regulated earnings those revenues resulting from non-utility Mist optimization. My exhibit uses actual historical revenues to calculate the percentage of revenues that are subject to each of the sharing percentages, based on 2008-2012 transactions.

Q. Describe what Exhibit 502 shows about the impact on the Company's revenues from non-Mist optimization if those revenues were subjected to the sharing percentages in the Spring Earnings Review?

A. My exhibit indicates that under Staff's proposal, and using actual, historical proportional earnings for each sharing category, the Company's overall share of revenues from all optimization activities—utility and non-utility—would be reduced to 27 percent.

Q. Describe what Exhibit 502 shows about the impact of excluding from the Spring Earnings Review those revenues attributable to non-utility Mist optimization?

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A. Once the revenues from non-utility Mist optimization have been removed from consideration, the Company's share of optimization revenues from resources included in customer rates decreases to 22 percent. This amount is significantly below the 39 percent Ms. Garcia relies on to test the reasonableness of her recommendation.

Q. Do you have any other concerns regarding Staff/302?

A. Yes. The percentages reflected in Staff/302 represent the relative proportions of utility versus shareholder investments in storage capacity as of 2013 and do not account for the fact that these proportions are changing over time. Consistent with the Company's Integrated Resource Plan, NW Natural plans to continue recalling additional Mist capacity for customer use as needed. In other words, the percentage reflected in Ms. Garcia's Column B, "Ratepayer Share," will be increasing over time, and the Company's revenue share will decrease.

Q. Are there any other concerns about including this revenue in the ROO?

A. Yes. I would like to briefly reiterate my concerns regarding including Optimization Activities revenues in the ROO for the purposes of the Spring Earnings Review and potentially the SRRM earnings review. It is inarguable that if these revenues are included in the Spring Earnings Review, the Company will have less incentive to participate in Optimization Activities. Moreover, as described in my testimony responding to CUB's similar recommendation, the Company is very concerned that inclusion of these revenues in the ROO may lead to the inclusion of this revenue in the earnings reviews that the Commission ultimately adopts as a component of the final SRRM, which is the subject of docket UM 1635. In that case, the Commission has indicated that it intends to adopt an earnings review with "deadbands."[11] If the

[11] *Re Mechanism for Recovery of Environmental Remediation Costs*, Docket UM 1635, Order No. 13-424 at 7 (Nov. 18, 2013).

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Company's share of revenues flowing from its Optimization Activities are included not only in the Spring Earnings Review, but also in the final SRRM earnings review, depending on how the deadbands are structured, any incentive to continue to participate in these activities would be further diluted, or even eliminated altogether.

Q. Ms. Garcia argues that the inclusion in the ROO would not dilute the Company's current incentive to participate in these activities because NW Natural has earned a significant amount of income every year since Optimization Activities have been pursued, and that there is therefore "no reason to believe that the Company will not continue such a successful program."[12] What is your response?

A. Ms. Garcia's comments ignore the fact recognized by Mr. Colville that NW Natural's Optimization Activities go beyond typical LDC activities and present risks to NW Natural's shareholders not otherwise present. It is also true that the Company has finite resources to engage in activities that go beyond its core obligations. A weakened incentive would signal the Company to reduce its Optimization Activities, and could lead the Company to reduce and eventually cease these activities altogether.

Q. Do you believe that it is consistent with Commission policy to include in the Spring Earnings Review -- and potentially the SRRM earnings review -- income derived from activities that are beyond the scope of normal LDC business activities?

A. No. The Commission has never included in the Spring Earnings Review income derived from Optimization Activities—regardless of whether the income was derived from: (1) non-utility Mist storage investment, (2) Mist storage utility rate base investments; or (3) non-earning contract resources whose costs are included in rates (*i.e.*, the gas supply

[12] Staff/300, Garcia/5, lines 13-14.

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portfolio other than Mist). Indeed, the Company believes that including this revenue in the Spring Earnings Review represents a dramatic shift from past practice and the record in this case does not warrant such a change. Rather, a more principled basis for determining which revenues should be included in regulated earnings for the purposes of earnings reviews would be whether the earnings are derived from an activity that is within an LDC's normal course of business.

Currently, earnings related to WACOG cost variances, incremental revenues and costs realized by the Company since its last rate case, and changes in rate base investment are included in the ROO calculation for purposes of the Spring Earnings Review. All of these costs and revenues are directly attributable to business activities that are performed as part of NW Natural's normal, LDC business activities. On the other hand, historically, earnings related to Optimization Activities—which Staff agrees are beyond the activities that are expected of an LDC—have been excluded from the Spring Earnings Review. Similarly, costs and revenues associated with activities such as the Appliance Center and Storage Services have been excluded from the earnings review. Storage Services and Optimization Activities are treated as non-utility activities and should therefore continue to be excluded from the Spring Earnings Review.

Q. Do you have any other concerns regarding inclusion in earnings reviews of income from activities outside the normal scope of the LDC role?

A. Yes. Taking this approach would have negative consequences in other areas of the Commission's regulation. For instance, currently the Commission and the Company are preparing to participate in a rulemaking to implement Senate Bill ("SB") 844. SB 844 allows the Commission to design an incentive program to encourage gas LDCs to go beyond the normal course of their business to economically achieve reductions in

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greenhouse gas ("GHG") emissions. The Company supports SB 844 and looks forward to participating in the programs the Commission ultimately approves. However, if the earnings from the SB 844 programs are included in the Spring Earnings Review, then the incentive to the Company to pursue the programs will be diluted. And if those earnings are included in an SRRM earnings review, the incentive could be eliminated altogether.[13]

Q. What is your recommendation regarding Ms. Garcia's proposal?

A. The Commission should reject Ms. Garcia's proposal and continue to include in the ROO earnings from activities that are standard LDC activities and continue to exclude those discretionary business activities that go beyond. Over the last 10 years, the Company's Storage Services and Optimization Activities have benefitted both customers and shareholders. The advantage of structuring the sharing arrangement as a "win/win" is that it encourages the Company to focus on creating value and to seek out innovative ways to enlarge the economic pie, with the understanding that the interests of the Company's two key stakeholders are aligned.

It is also important to note that with the lone exception of the 53 percent of Mist storage capacity that is included in rates, the earnings that are the subject of this docket—Storage Services and Optimization Activities—do not involve any assets included in rate base for which the Company can earn a return within the normal course of gas LDC business. To include these earnings into the "numerator" of the ROR calculation without any corresponding investment in the "denominator" is inappropriate and would undermine the incentive nature of the mechanism.

[13] On this point, please see NWN/300, White/20, and NWN/305.

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In sum, the current incentive structure strikes a reasonable balance between customers and shareholders. No party has submitted compelling evidence to warrant a revision to the current arrangement—either directly or indirectly—as would be the result of including certain Optimization Activities' earnings in the Company's ROO.

Q. Does this conclude your testimony?

A. Yes.

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NWN/501
White/1

BARTER TRANSACTION CONFIRMATION
FOR IMMEDIATE DELIVERY

EXHIBIT

TENASKA MARKETING CANADA	Date: March 20, 2013 Transaction Confirmation #: A1- Backdraft

This Transaction Confirmation is subject to the Base Contract between Seller and Buyer dated July 1, 2004. The terms of this Transaction Confirmation are binding unless disputed in writing within 2 Business Days of receipt unless otherwise specified in the Base Contract.

SELLER: Northwest Natural Gas Company ("NWN") 220 NW Second Avenue Portland, OR 97209 U.S.A. Attn: Manager, Gas Supply Phone: (503) 226-4211 Fax: (503) 220-2421 Base Contract No. Transporter: ________ Transporter Contract Number: ________	**BUYER:** Tenaska Marketing Canada ("TMC") 11718 Nicholas Street Omaha, NE 68154-4413 Attn: John Parks Phone: 303-723-9305 Fax: 402-758-6250 Base Contract No. CT-002277 Transporter: Transporter Contract Number:

Contract Price: In consideration of gas sold by TMV to NWN at U.S. citygate delivery points during a similar delivery period under a separate Transaction Confirmation #A2 applicable between NWN and TMV.

Delivery Period: Begin: April 1, 2013 End: March 31, 2014

Performance Obligation and Contract Quantity: (Select One)

Firm (Fixed Quantity):	**Firm (Variable Quantity):**	**Interruptible:**
_______ MMBtus/day EFP	_______ MMBtus/day Minimum Up to ____ MMBtus/day Maximum subject to Section 4.2. at election of ☒ Buyer or __ Seller	☒Up to 100,000 MMBtus/d*

Delivery Point(s): ☒ Huntingdon – Spectra Energy's Westcoast ☒ Other mutually agreeable Canadian Delivery Point(s)

Special Conditions: This transaction regards an interruptible physical sale and delivery of Gas by NWN to TMC at the designated delivery point(s) during the designated Delivery Period and is subject to interruption for reasons which include, without limitation, OFO conditions on transporting pipelines that are applicable to Seller. Notwithstanding the prior sentence, the parties have agreed to designate a Termination Option under which NWN may terminate both the transactions where it is the Seller to TMC under this Confirmation #A1 and when it is the Buyer from TMV hereunder (Confirmation #A2) in the event that TMV fails to perform its Firm obligation to deliver the Gas as agreed upon between the parties under Confirmation #A2 (whether excused or unexcused) for a period of two (2) Days. There will be no net financial settlement provisions in lieu of physical delivery/receipt of the gas, but there may be netting of payments due as provided for in Section 7 of the NAESB Base Contract General Terms and Conditions and in Section 3 regarding an Event of Default.

***Performance Obligation and Contract Quantity:** On a daily interruptible basis, NWN may sell and deliver to TMC a quantity of Gas which will be from 0 up to a maximum of 100,000 MMBtus/day; provided, however, that the parties agree that on any day during the Delivery Period, the total cumulative sum of gas sold under Transaction Confirmations A1/A2, C1/C2 and D1/D2 between the parties (including Tenaska Marketing Ventures, "TMV"), as applicable, will not exceed 130,000 MMBtus/day, and the total cumulative sum of gas purchased under Transaction Confirmations A1/A2, C1/C2 and D1/D2 between the parties (including TMV), as applicable, will not exceed 130,000 MMBtus/day. NWN will notify TMC of its ability to sell gas hereunder and if the parties are in agreement on a sale, NWN will notify TMC of its nomination no later than 7:00 a.m. Mountain Prevailing Time ("MPT") on the Day prior to flow; however, for weekends and holidays, any agreed upon nomination shall be for a uniform volume and include the weekend and/or holiday and following business day. If applicable, NWN will notify TMC 2 hours prior to the respective pipeline nomination deadline for cycle 2 through 4.

Seller: NORTHWEST NATURAL GAS COMPANY By: Keith White Title: VP, Bus. Dev. & Energy Supply/CSO Date: 4/1/2013	Buyer: TENASKA MARKETING CANADA, A Division of TMV Corp. By: ya Title: JOHN OBERMILLER SENIOR VICE PRESIDENT, FINANCE Date:

EXHIBIT

BARTER TRANSACTION CONFIRMATION FOR IMMEDIATE DELIVERY

Letterhead/Logo

Date: ______________, ____
Transaction Confirmation #: A2 - Backdraft

This Transaction Confirmation is subject to the Base Contract between Seller and Buyer dated February 1, 2004. The terms of this Transaction Confirmation are binding unless disputed in writing within 2 Business Days of receipt unless otherwise specified in the Base Contract.

SELLER:	BUYER:
Tenaska Marketing Ventures ("TMV")	Northwest Natural Gas Company ("NWN")
11718 Nicholas Street	220 NW Second Avenue
Omaha, NE 68154-4413	Portland, OR 97209 U.S.A.
Attn: John Parks	Attn: Manager, Gas Supply
Phone: 303-723-9305	Phone: (503) 226-4211
Fax: 402-758-6250	Fax: (503) 220-2421
Base Contract No. ____________	Base Contract No.
Transporter: ____________	Transporter:
Transporter Contract Number: ____________	Transporter Contract Number:

Contract Price: In consideration of gas sold by NWN to TMC in Canada during a similar delivery period under a separate Transaction Confirmation #A1 applicable between NWN and TMC.

Delivery Period: Begin: April 1, 2013 End: March 31, 2014

Performance Obligation and Contract Quantity: (Select One)

Firm (Fixed Quantity):
_______ MMBtus/day
☐ EFP

Firm (Variable Quantity):
_______ MMBtus/day Minimum
✓ Up to 100,000 MMBtus/day Maximum* see Special Conditions subject to Section 4.2. at election of
☒ Buyer or __ Seller

Interruptible:
Up to ___ MMBtus/d

Delivery Point(s): ☒ U.S. NWPL Portland Gates

Special Conditions: (i) This transaction regards a Firm physical sale and delivery of Gas at the designated delivery point(s). (ii) notwithstanding (i), the parties have agreed to designate a Termination Option under which NWN may terminate both the transactions where it is the Seller to TMC under Confirmation #A1 and when it is the Buyer from TMV hereunder (Confirmation #A2) in the event that TMV fails to perform its Firm obligation to deliver the Gas as agreed upon between the parties hereunder (whether excused or unexcused) for a period of two (2) Days; and (iii) there will be no net financial settlement provisions in lieu of physical delivery/receipt of the gas, but there may be netting of payments due as provided for in Section 7 the NAESB Base Contract General Terms and Conditions and in Section 3 for an Event of Default.

***Performance Obligation and Contract Quantity:** The total quantity sold by TMV to NWN over the Delivery Period documented by this Transaction Confirmation will be equal to the total quantity sold and delivered to Tenaska Marketing Canada ("TMC") by NWN during the Delivery Period covered by a separate Transaction Confirmation #A1 applicable between such parties; provided, however, that the parties agree that on any day during the Delivery Period, the total cumulative sum of gas sold under Transaction Confirmations A1/A2, C1/C2 and D1/D2 between the parties (including TMC), as applicable, will not exceed 130,000 MMBtus/day, and the total cumulative sum of gas purchased under Transaction Confirmations A1/A2, C1/C2 and D1/D2 between the parties (including TMC), as applicable, will not exceed 130,000 MMBtus/day. Specifically, TMV will notify NWN of the Firm amount that is available for sale and delivery on a given day and if the parties agree on a sale, TMV will notify NWN of its daily nomination no later than 7:00 a.m. Mountain Prevailing Time ("MPT") on the Day prior to flow; however, for weekends and holidays, any nomination shall be for a uniform volume and include the weekend and/or holiday and following business day. If applicable, TMV will notify NWN 2 hours prior to the respective pipeline nomination deadline for cycle 2 through 4.

Seller: TENASKA MARKETING VENTURES	Buyer: NORTHWEST NATURAL GAS COMPANY
By: TMV Holdings, LLC, Its Managing Partner	
By: [signature]	By: Keith White [signature] RH
Title: JOHN OBERMILLER SENIOR VICE PRESIDENT, FINANCE	Title: VP, Bus. Dev. & Energy Supply/CSO
Date:	Date: 4/1/2013

Case I - As included in Garcia 302

Oregon share income	Allocation before Earnings Test: Mist Related Optimization: Subject to 80/20 sharing		Subject to 33/67 sharing		Total	Allocation after Earnings Test Sharing: ET sharing	ET Effect	Post ET	Post ET Incentive
10,000,000	53%	5,300,000	47%	4,700,000	10,000,000				
NWN Shareholders	80%	4,240,000	33%	1,551,000	5,791,000	67%	3,879,970	3,879,970	39%
NWN Ratepayers	20%	1,060,000	67%	3,149,000	4,209,000	33%	1,911,030	6,120,030	61%
								10,000,000	

Case II - Case I corrected for Mist allocation between Core (53% and 33/67 sharing) and non-core (47% and 80/20 sharing)

Oregon share of income	Allocation before Earnings Test: Mist Related Optimization: Subject to 80/20 sharing		Subject to 33/67 sharing		Total	Allocation after Earnings Test Sharing: ET sharing	ET Effect	Post ET	Post ET Incentive
10,000,000	47%	4,700,000	53%	5,300,000	10,000,000				
NWN Shareholders	80%	3,760,000	33%	1,749,000	5,509,000	67%	3,691,030	3,691,030	37%
NWN Ratepayers	20%	940,000	67%	3,551,000	4,491,000	33%	1,817,970	6,308,970	63%
								10,000,000	

Case III - Case revised for inclusion of non-Mist Optimization (Total revenue broken out based on 5-year average %'s) - See note below.

Oregon share of income	Allocation before Earnings Test: Mist Related Optimization: Subject to 80/20 sharing		Subject to 33/67 sharing		Non Mist Optimization: Subject to 33/67 sharing		Total	Allocation after Earnings Test Sharing: ET sharing	ET Effect	Post ET	Post ET Incentive
3,363,828	47%	1,580,999	53%	1,782,829		6,636,172	10,000,000				
NWN Shareholders	80%	1,264,799	33%	588,334	33%	2,189,937	4,043,070	67%	2,708,857	2,708,857	27%
NWN Ratepayers	20%	316,200	67%	1,194,495	67%	4,446,235	5,956,930	33%	1,334,213	7,291,143	73%
										10,000,000	

Case IV - Case III revised to exclude non-core (47% and 80/20 sharing) amounts

Oregon share of income	Allocation before Earnings Test: Mist Related Optimization: Subject to 80/20 sharing		Subject to 33/67 sharing		Non Mist Optimization: Subject to 33/67 sharing		Total	Allocation after Earnings Test Sharing: ET sharing	ET Effect	Post ET	Post ET Incentive
3,363,828	47%	-	53%	1,782,829		6,636,172	8,419,001				
NWN Shareholders	80%	-	33%	588,334	33%	2,189,937	2,778,270	67%	1,861,441	1,861,441	22%
NWN Ratepayers	20%	-	67%	1,194,495	67%	4,446,235	5,640,731	33%	916,829	6,557,560	78%
										8,419,001	

Note to Case III heading: 5-year average %'s derived using 2008 to 2012 activity from NWN/301 White/1 (filed 9/23/13).
Amounts for each credit category were grossed up for sharing percentages and core / ISS proportion for sample month during each year to produce Oregon Income levels.